Complete Summary

GUIDELINE TITLE

Recommendations for blood lead screening of young children enrolled in Medicaid: targeting a group at high risk.

BIBLIOGRAPHIC SOURCE(S)

Recommendations for blood lead screening of young children enrolled in Medicaid: targeting a group at high risk. MMWR Recomm Rep 2000 Dec 8;49(RR-14):1-13. [25 references]

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Lead poisoning (blood lead levels of greater than or equal to 10 micrograms/dL)

GUIDELINE CATEGORY

Screening

CLINICAL SPECIALTY

Family Practice
Internal Medicine
Pediatrics
Preventive Medicine

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Health Care Providers

Health Plans
Managed Care Organizations
Nurses
Physician Assistants
Physicians
Public Health Departments

GUIDELINE OBJECTIVE(S)

To present recommendations developed by the Advisory Committee on Childhood Lead Poisoning Prevention (ACCLPP) regarding lead screening and follow-up care for children enrolled in Medicaid.

TARGET POPULATION

- All children enrolled in Medicaid at ages 12 and 24 months old
- All children enrolled in Medicaid who have not previously been tested for lead poisoning and are younger than 6 years old

INTERVENTIONS AND PRACTICES CONSIDERED

1. Screening blood lead test
2. Follow-up services, including information, feedback, and reimbursement to health care providers
3. Environmental follow-up services and medical and case management to children with elevated blood lead levels

MAJOR OUTCOMES CONSIDERED

Not stated

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Not stated

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Excerpted by the National Guideline Clearinghouse (NGC)

Recommendations to Ensure Screening and Follow-up Care for Children Enrolled in Medicaid

To ensure blood lead screening and appropriate follow-up care for young children at risk for lead poisoning and enrolled in Medicaid, the Advisory Committee on Childhood Lead Poisoning Prevention (ACCLPP) makes the following recommendations for health care providers and states, as well as other agencies that administer Medicaid programs (e.g., those serving Medicaid-eligible Native Americans). According to the Centers for Disease Control and Prevention (CDC)

recommendations, if there are no reliable blood lead data demonstrating the absence of lead exposure among this population, health care providers should:

- Screen all young children enrolled in Medicaid with a blood lead test in accordance with Health Care Financing Administration (HCFA) policy;
- Provide medical management and care; and
- Refer children with elevated blood lead levels for environmental and public health case management.

A. Advisory Committee on Childhood Lead Poisoning Prevention Recommendations for Health-Care Providers

- All children enrolled in Medicaid should be screened with a blood lead test at ages 12 and 24 months or at ages 36 to 72 months if they have not previously been screened.

  The Advisory Committee on Childhood Lead Poisoning Prevention recommends administration of a blood lead screening test for all children enrolled in Medicaid at ages 12 and 24 months; children who have not previously been screened should be tested at ages 36 to 72 months. Administrating a risk-assessment questionnaire instead of a blood lead test does not meet Medicaid requirements.

  If children are exposed to lead, their blood lead levels tend to increase during ages 0 to 2 years and peak at ages 18 to 24 months. Therefore, screening is recommended at both ages 1 and 2 years to identify children who need medical management and environmental and public health case management. Identifying a child with an elevated blood lead level at age 1 year might prevent additional increases during ages 1 to 2 years. In addition, a child with a blood lead level <10 micrograms/dL at age 1 year might have an elevated level by age 2 years, underscoring the importance of rescreening at age 2 years. Screening is recommended for previously untested children aged <6 years to rule out subclinically elevated blood lead levels during critical stages of development.

- Children identified with elevated blood lead levels require evaluation and referral for appropriate follow-up services.

  Children identified with elevated blood lead levels should be evaluated and treated in accordance with the Centers for Disease Control and Prevention guidelines for follow-up care, including care coordination and public health, medical, and environmental management. Few children will have blood lead levels high enough to warrant intensive medical treatment (e.g., chelation therapy). However, many children with elevated blood lead levels will need follow-up services, including more frequent blood lead testing, environmental investigation, case management, and lead hazard control. In many jurisdictions, public health or environmental agencies are available to provide or coordinate follow-up care for children with elevated blood lead levels who are referred by health care providers. The Advisory Committee on Childhood Lead Poisoning Prevention is developing updated recommendations for environmental, medical, developmental,

nutritional, and educational interventions for children with elevated blood lead levels.

B. Advisory Committee on Childhood Lead Poisoning Prevention Recommendations for States and Other Agencies That Administer Medicaid Programs

The actions recommended by the Advisory Committee on Childhood Lead Poisoning Prevention for states (and other agencies administering Medicaid programs) establish the framework necessary to support and, in some cases, help health care providers and administrators of managed-care plans provide the required blood lead screening and follow-up services to children enrolled in Medicaid. (The considerable variation in the state-by-state design and administration of Medicaid programs precludes assignment of specific agency responsibility.) Implementing some of the following strategies will require establishing new roles and partnerships for Medicaid agencies and health departments.

- Ensure that state Medicaid policies and program materials on blood lead screening are in compliance with federal Medicaid requirements.

  States should review their Early and Periodic Screening, Diagnosis, and Treatment policies and program documentation, particularly health care provider manuals and Early and Periodic Screening, Diagnosis, and Treatment screening schedules, to ensure they comply with Health Care Financing Administration policy.

- Ensure that state Medicaid managed-care contracts explicitly include federal blood lead screening requirements and provide for follow-up services for children identified with elevated blood lead levels.

  In states where young Medicaid beneficiaries are receiving care from managed care organizations, state Medicaid agencies should review existing contracts to ensure explicit inclusion of blood lead screening and follow-up services for children with elevated blood lead levels. These contracts also present an opportunity to require reporting of blood lead screening test results and to establish quality assurance measures. Particularly important are provisions for state oversight and feedback to the health care provider regarding performance. To help states develop Medicaid managed care contracts that promote blood lead screening and lead poisoning prevention, sample purchasing specifications are available for childhood lead poisoning prevention services. In developing their managed care contracts, states should decide whether to permit health care providers to refer Medicaid-enrolled children to off-site laboratories to have their blood drawn, a practice that imposes an additional burden on families and could cause lower screening rates.

- Provide information to health care providers regarding Medicaid blood lead screening policies and the data that justify them.

  State Medicaid and public health agencies should collaborate with medical professional associations and other stakeholders to develop health care provider education initiatives. Such educational programs should include information regarding:

  a. The content of and scientific basis for blood lead screening recommendations, including differences between federal regulations, policies, and requirements;
  b. State Medicaid policy and contracts;
  c. State laws; and
  d. State screening plans.

  Educational initiatives also could promote reporting of blood lead test results by health care providers and build community support for childhood lead poisoning prevention.

- Ensure that health care providers receive adequate Medicaid Early and Periodic Screening, Diagnosis, and Treatment Program reimbursement and capitation rates for blood lead screening and follow-up services.

  Medicaid blood lead screening services are usually provided by physicians and managed care organizations as part of a larger package of prevention services for children (i.e., the Early and Periodic Screening, Diagnosis, and Treatment Program) and are reimbursed as a package. In states where the list of required Early and Periodic Screening, Diagnosis, and Treatment Services has been expanded without compensatory increases in reimbursement rates, there are substantial disincentives to providing the full range of Early and Periodic Screening, Diagnosis, and Treatment Services or participating in the Medicaid program. All states should review the reimbursement rates and capitation rates for Early and Periodic Screening, Diagnosis, and Treatment Services and blood lead screening and treatment services to ensure that reasonable compensation is provided to health care providers and managed care organizations. In addition, other resources could be made available to health care providers to promote blood lead screening. For example, health care providers working in medically underserved areas with children at high risk for elevated blood lead levels could receive hand-held lead screening devices at no charge, and arrangements should be made for screening results to be reported to public health authorities.

- Ensure that children identified with elevated blood lead levels receive environmental follow-up in addition to other components of case management.

  For blood lead screening to be a meaningful prevention service, identification of a child with an elevated blood lead level must trigger

services that will lower the child's blood lead level. Any treatment regimen that does not eliminate lead exposure is inadequate. Services needed by a child with an elevated blood lead level can include environmental investigation to identify the source of the exposure and lead hazard control to eliminate its pathway, along with case management services to ensure that the child receives all necessary public health, environmental, medical, and social services.

Children enrolled in Medicaid are entitled by federal law to all necessary follow-up services allowable under the Medicaid program. Current Health Care Financing Administration policy requires that all state Medicaid programs cover a one-time environmental investigation to determine the source of lead and the necessary case-management services. Yet many states have failed to establish reimbursement mechanisms for these covered services. As of early 1999, only 22 state Medicaid agencies reported covering environmental investigation, whereas 20 reported covering case management.

Health Care Financing Administration policy on coverage of a one-time environmental investigation to determine the source of lead is limited to the health professional's time, as well as activities during an on-site investigation of the child's home or primary residence. This policy effectively allows activities such as visual assessment of the home, interview of occupants, and on-site x-ray fluorescence analysis of lead paint content, when analyzers are available. Health Care Financing Administration policy prohibits state Medicaid programs from covering the costs of environmental laboratory analyses (e.g., testing paint, dust, or water samples for lead content). These analyses are critical components of environmental investigations for children with elevated blood lead levels. The Advisory Committee on Childhood Lead Poisoning Prevention recommended Medicaid coverage for these laboratory services in a letter from Advisory Committee on Childhood Lead Poisoning Prevention Chair Susan K. Cummins, M.D., M.P.H., to the Secretary of the United States Department of Health and Human Services (DHHS). Finding resources to reduce children's exposure to lead poses additional challenges. Medicaid offers no explicit coverage for lead hazard control measures. United States Department of Housing and Urban Development (HUD) Lead Hazard Control Grant funds of $60 million in fiscal year 2000 are available in approximately 200 jurisdictions. In addition, lead hazard control is an eligible activity for block grant funds provided to state and local governments under the United States Department of Housing and Urban Development's Community Development Block Grant and HOME Investment Partnerships programs, which received $4.8 billion and $1.6 billion, respectively, in fiscal year 2000.

- Measure health care provider performance on blood lead screening, give feedback to providers, and consider incentives and other quality-control measures to promote lead screening and ensure follow-up care.

State Medicaid agencies should measure the blood lead screening performance of participating health plans and health care providers, provide feedback on their performance, and develop collaborative approaches for improving performance. State Medicaid agencies should consider focused quality-control or incentive measures to promote federally mandated clinical practices. Independent chart audits, automated reminder systems, visible enforcement actions, and task-specific financial incentives or penalties might be appropriate in some instances to improve performance.

For example, screening rates in Iowa increased after reminders were sent to health care providers. In addition, the Iowa Department of Public Health is considering a plan to identify health care providers' claims for Medicaid reimbursement for Early and Periodic Screening, Diagnosis, and Treatment screening visits for which there are no associated claims for blood lead tests. Local programs and federal Title V Maternal and Child Health programs would receive this information, which would be used to inform identified health care providers of the Medicaid policy on blood lead screening.

- Ensure that state information systems allow tracking of blood lead screening and prevalence of elevated blood lead levels among young children enrolled in Medicaid.

  Health Care Financing Administration policy now requires states to report the annual number of blood lead screening tests provided to Medicaid-enrolled children, beginning fiscal year 1999 (revised Health Care Financing Administration form 416). State information systems should be developed or enhanced to:

  a. Monitor blood lead screening rates;
  b. Meet the Health Care Financing Administration policy reporting requirement;
  c. Assess the prevalence of elevated blood lead levels among children enrolled in Medicaid; and
  d. Ensure that blood lead tests are reported systematically to public health agencies.

  Some states are shifting from information systems for fee-for-service claims to systems for managed care; other states must work with both systems. Some states do not have public health reporting mechanisms to monitor blood lead screening results, and most states have not linked Medicaid enrollment information and blood lead test results.

  Information systems are being enhanced in some states. For example, Illinois, Iowa, Connecticut, North Carolina, Wisconsin, and Utah are developing systems to link Medicaid records and blood lead screening data. Iowa has developed a method for the Title V program to import blood lead screening data from the state's childhood lead poisoning prevention program. Rhode Island has developed an integrated pediatric public health tracking and information system (i.e., KidsNet)

for pediatric preventive health services (e.g., blood lead screening and vaccination).

- Establish partnerships between Medicaid agencies and other programs that serve children enrolled in Medicaid to ensure these children receive appropriate services.

  Some obstacles to blood lead screening for children enrolled in Medicaid are not unique to blood lead screening but reflect the challenge of delivering preventive care to hard-to-reach segments of this population. To increase screening rates, some state and local programs are developing blood lead screening initiatives with other public programs. Some states are collaborating with the Special Supplemental Nutrition Program for Women, Infants, and Children, Head Start, or other programs for families receiving government assistance or with programs delivering preventive health services to Medicaid-enrolled children. For example, Iowa is working to establish partnerships with its Title V program and the Supplemental Nutrition Program for Women, Infants, and Children program. The concerted efforts and copious resources dedicated by immunization programs to increase vaccination coverage among young children in recent years is showing impressive results, including for children living in poverty. In 1997, vaccination coverage rates for United States children aged 19 to 35 months living in poverty ranged from 86% for measles-containing vaccine to 93% for three doses of diphtheria and tetanus toxoids and pertussis vaccine (including 80% for the newer hepatitis B vaccine). Public health agencies should review the literature in this field, as well as their own program successes, to identify models and links with other programs that could be adapted to improve blood lead screening performance for Medicaid-enrolled children.

- Use new blood lead screening technologies to improve blood lead screening services.

  In 1997, the United States Food and Drug Administration (FDA) cleared for marketing a hand-held blood lead testing device for health care facilities and physician laboratories certified by the Clinical Laboratory Improvement Amendments. This device provides "real-time" blood lead screening results, and other portable devices are in development. Use of these portable lead testing devices can improve access to blood lead screening. These devices allow immediate feedback to families and eliminate the delay associated with a follow-up visit. If the test result shows an elevated blood lead level, the result can be confirmed by immediate retesting, and the family can be provided lead education and help to limit lead exposure. State Medicaid and public health agencies should collaborate to develop innovative ways to use this and other new screening technologies to enhance lead poisoning prevention services.

  For public health facilities, Clinical Laboratory Improvement Amendments requirements for use of this device can be met through collaboration with state public health laboratories, which can oversee

quality control, coordinate proficiency testing, and provide training and certification of personnel. When hand-held devices move blood lead analysis from traditional laboratories to the field, information systems should be established to ensure that blood test results are reported systematically to the appropriate public health agencies so that valuable screening data are included in state tracking systems. Ideally, new blood lead testing devices for field or office use would provide automatic collection and reporting of blood lead test results.

Future Considerations

Health Care Financing Administration policy requires blood lead screening for all young children enrolled in Medicaid and does not currently permit any variation from this requirement. However, the Health Care Financing Administration will be working with Advisory Committee on Childhood Lead Poisoning Prevention to develop an approach that would permit targeted screening of Medicaid-enrolled children in states where adequate data support such a policy. Advisory Committee on Childhood Lead Poisoning Prevention, in conjunction with the Centers for Disease Control and Prevention, has agreed to assist the Health Care Financing Administration in considering this approach by developing scientifically based criteria for targeted screening. Targeted screening should be considered only on the basis of reliable and representative blood lead data (e.g., from screening and population surveys).

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Ensure delivery of blood lead screening and follow-up services for young children enrolled in Medicaid.
- Prevention of serious health effects associated with high blood lead levels, including seizures, coma, and death as well as adverse effects on cognitive development, growth, and behavior.

POTENTIAL HARMS

Not stated

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

State Medicaid and public health agencies should collaborate with medical professional associations and other stakeholders to develop health care provider education initiatives.

Such educational programs should include information regarding:

- The content of and scientific basis for blood lead screening recommendations, including differences between federal regulations, policies, and requirements;
- State Medicaid policy and contracts;
- State laws; and
- State screening plans.

Educational initiatives also could promote reporting of blood lead test results by health care providers and build community support for childhood lead poisoning prevention.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Recommendations for blood lead screening of young children enrolled in Medicaid: targeting a group at high risk. MMWR Recomm Rep 2000 Dec 8;49(RR-14):1-13. [25 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2000 Dec 8

GUIDELINE DEVELOPER(S)

Centers for Disease Control and Prevention - Federal Government Agency [U.S.]

GUIDELINE DEVELOPER COMMENT

Members and consultants of the Advisory Committee on Childhood Lead Poisoning Prevention included non-Federal experts from health departments, pediatric practices, managed care organizations, academia, and non-governmental agencies working on affordable housing and public lead poisoning prevention education.

SOURCE(S) OF FUNDING

United States Government

GUIDELINE COMMITTEE

Advisory Committee on Childhood Lead Poisoning Prevention (ACCLPP)

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Advisory Committee on Childhood Lead Poisoning Prevention (ACCLPP), Membership List, February 2000: Susan K. Cummins, M.D., M.P.H. (Chair); Jerry M. Hershovitz (Executive Secretary); Carla C. Campbell, M.D., M.S.; Cushing N. Dolbeare; Anne M. Guthrie, M.P.H.; Birt Harvey, M.D.; Richard E. Hoffman, M.D., M.P.H.; Amy A. Murphy, M.P.H.; Estelle B. Richman, M.A.; Joel D. Schwartz, Ph.D.; Michael W. Shannon, M.D., M.P.H.; Michael L. Weitzman, M.D.

Ex Officio Members: Michael Bolger, Ph.D., U.S. Food and Drug Administration; John Borrazzo, Ph.D., U.S. Agency for International Development; David Jacobs, Ph.D., U.S. Department of Housing and Urban Development; Ronald L. Medford, M.S., U.S. Consumer Product Safety Commission; Walter Rogan, M.D., National Institute of Environmental Health Sciences; Robert J. Roscoe, M.S., National Institute for Occupational Safety and Health, CDC; William H. Sanders, III, Dr.P.H., U.S. Environmental Protection Agency; Allan Susten, M.D., Agency for Toxic Substances and Disease Registry; Stuart Swayze, M.S.W., Health Resources and Services Administration; Jerry Zelinger, M.D., Health Care Financing Administration

Liaison Representatives: American Academy of Pediatrics: J. Routt Reigart, II, M.D.; American Association of Health Plans: Eric K. France, M.D., M.S.P.H.; American Industrial Hygiene Association: Steve M. Hays; American Public Health Association: Rebecca Parkin, Ph.D., M.P.H.; Association of Public Health Laboratories: Henry Bradford, Jr., Ph.D.; Association of State and Territorial Health Officials: Peter M. Nakamura, M.D., M.P.H.; Council of State and Territorial Epidemiologists: Bela Matyas, M.D., M.P.H.; National Center for Lead Safe Housing: Pat McLaine, M.P.H.

The following CDC staff members prepared this report: Alan B. Bloch, M.D., M.P.H. and Lisa R. Rosenblum, M.D., M.P.H., Division of Environmental Hazards and Health Effects National Center for Environmental Health in collaboration with Anne M. Guthrie, M.P.H., Alliance to End Childhood Lead Poisoning

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

The Advisory Committee on Childhood Lead Poisoning Prevention (ACCLPP) is developing updated recommendations of specific guidelines for environmental, medical, developmental, nutritional, and educational interventions for children with elevated blood lead levels. ACCLPP regularly advises the Centers for Disease Control and Prevention (CDC) regarding new scientific knowledge and technological developments and their practical implications for childhood lead poisoning prevention efforts.

GUIDELINE AVAILABILITY

Electronic copies: Available in HTML format from the Centers for Disease Control and Prevention (CDC) Web site. This document is also available in Portable Document Format (PDF).

Print copies: Available from the Centers for Disease Control and Prevention, MMWR, Atlanta, GA 30333. Additional copies can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9325; (202) 783-3238.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

1. Title 42: The public health and welfare, Chapter 7: Social Security Act, Title XIX: Grants to states for medical assistance programs. 42 USCS Â§396d (1999).
2. U.S. Health Care Financing Administration. Part 5: early and periodic screening, diagnosis, and treatment (EPSDT). In: State Medicaid manual. Baltimore, MD: U.S. Health Care Financing Administration; September 1998. HCFA publication no. 45-5. Section Â§5123.2. Transmittal no. 12.
3. Screening young children for lead poisoning: guidance for state and local public health officials. Atlanta (GA): Centers for Disease Control and Prevention, 1997. Various pagings. Electronic copies: Available from the Centers for Disease Control and Prevention (CDC) Web site. Print copies: Available from the Centers for Disease Control and Prevention, MMWR, Atlanta, GA 30333. Additional copies can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9325; (202) 783-3238.

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on June 18, 2001.

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